IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.	:	10/757,455	TC/Art Unit	:	2444	
Applicant	:	Khiem Le	Conf. No.	:	5064	
Filing Date	:	January 15, 2004	Examiner	:	Umar Cheema	
Title	:	OPTIMIZING THE COMPRESSION EFFICIENCY IN A PACKET DATA COMMUNICATION				

Mail Stop Pre-Appeal
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL REQUEST FOR REVIEW

This Pre-Appeal Brief Request for Review is with regards to the office action mailed November 23, 2010. No amendments are being filed with this Request. This Request is being filed with a Notice of Appeal. Reconsideration and Allowance is respectfully requested in view of the Remarks contained in the following pages.

REMARKS

Status of Claims

Claims 1-26 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,970,476 to Jonsson et al. (Jonsson) in view of U.S. Patent Application Publication No. 2003/0012278 to Banerji et al. (Banerji), U.S. Patent No. 6,151,627 to McBride et al. (McBride), and U.S. Patent No. 6,236,341 to Dorward et al. (Dorward).

Claims 1-26 are pending.

A. The Examiner improperly ignores the express language of claim 2.

Claim 2 recites "selectively updating, at a compressor implemented at a serving node of a cellular network, a compression history based on a first algorithm and a second algorithm, wherein the first algorithm is configured to determine, based on a compressibility of a packet, whether a payload of the packet is to be compressed before being transmitted via a transmission control protocol to a mobile station, and the second algorithm is configured to determine whether the packet, when compressed, is used for the updating of the compression history, the compression history used to compress another payload of a subsequent packet, wherein the compressor monitors an acknowledgment signaling of a transmission control protocol receiver at the mobile station." However, the Examiner improperly ignores numerous features of claim 2 as evident by the Office Action mailed November 23, 2010 which makes no mention of "selectively updating, **at a compressor implemented at a serving node of a cellular network ...** wherein the first algorithm is configured to determine, **based on a compressibility of a packet,** whether a payload of the packet is to be compressed before being transmitted via a transmission control protocol to a mobile station (emphasis added)." Indeed, ignoring the claim 2 "selectively updating, at a compressor implemented at a serving node of a cellular network" and "based on a compressibility of a packet" is a *clear error* for at least the reason that claim 2 explicitly recites those phrases.

Given the Examiner's failure to address "selectively updating, at a compressor implemented at a serving node of a cellular network" and "based on a compressibility of a packet," **the Office Action fails to comply with 35 U.S.C. § 132,** which requires the Director to "notify the applicant thereof, **stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application.**" Here, the Office has clearly violated this requirement of 35 U.S.C. 132.

In view of the foregoing, the rejection of claim 2 under 35 U.S.C. §103(a) should be withdrawn.

B. There can be no motivation to combine Jonsson, Banerji, McBride, and Dorward.

As stated in MPEP §2141.02 and §2143.03, a proper rejection under 35 U.S.C. §103(a) must be based on a consideration of whether the claimed subject matter <u>as a whole</u> would have been obvious to

one of ordinary skill in the art at the time of invention. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). Contrary to this requirement, the combination of Jonsson, Banerji, McBride, and Dorward appears to have been assembled in a manner akin to the creation of Dr. Frankenstein's monster. The Office has apparently unearthed numerous unrelated elements from these references based an inventory list generated from the language of the instant claims and stitched these unrelated elements together to allegedly recited the claimed subject matter. This haphazard assemblage demonstrates a lack of proper concern or consideration for whether the assembled elements would function in a manner consistent with the claimed subject matter as is required for a proper rejection under 35 U.S.C. 103(a). Just as Dr. Frankenstein's monster was an abomination because of Dr. Frankenstein's failure to properly consider whether the various body parts he had assembled could properly form a functioning person, the Office's proffered rejection cannot stand because the elements assembled from the cited references merely skirt around the claimed subject matter without providing the requisite rationale that would have caused one of ordinary skill in the art to see a benefit or other motivation to create the claimed subject matter. See *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1383, 231 USPQ 81, 93 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987).

The first unearthed reference is Jonsson. But rather than compress packet payloads, Jonsson instead describes a packet transmitting station transmitting packets with compressed headers to a packet receiving station. The compressed headers are decompressed by a header decompressor at the packet receiving station. If the packet with the compressed header does not reach the packet receiving station within a predetermined amount of time, a request for context update is generated. A context update takes place in response to the request. The Examiner proposes fundamental changes to Jonsson's header compression system to instead compress packet payloads without any motivation for making such a fundamental change. But M.P.E.P 2143.03 states "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." Furthermore, it is not surprising that Jonsson lacks any disclosure or suggestion of "selectively updating a compression history at a compressor based on a first algorithm and a second algorithm, wherein the first algorithm is configured to determine whether a payload of a packet is to be compressed, and the second algorithm is configured to determine whether the compressed packet is to be used for the updating of the compression history, the compression history used for compression of another payload of a subsequent packet" as recited in claim 1.

The Examiner then adds Banerji to Jonsson. Rather than compress packet "payloads," Banerji describes a very complex mechanism for discrete cosine transform (DCT) compression of motion vectors

- 3 -

of frames of a video sequence. The motion vectors of the frames of the video sequence are stored in files corresponding to motion (e.g. vertical motion and horizontal motion) represented by the motion vectors. These files are compressed separately using a compression algorithm. The compression algorithm for the compression of the motion vectors takes into account the resemblance of similar regions between a current frame and previous frames of the video sequence. The resemblance is accounted for by exploiting repetitiveness of motion vectors representing the similar regions. Information regarding the similar regions and indicating the resemblance is called data vectors, which is located in beginning of the files. See Banerji at paragraphs 9-11. The Examiner proposes fundamental changes to Banerji's DCT video compression system in contravention of M.P.E.P 2143.03 and without any reasonable motivation. Moreover, Applicants submit that Banerji is non-analogous art. In any case, Banerji lacks any disclosure or suggestion of "selectively updating a compression history at a compressor based on a first algorithm and a second algorithm ... the compression history used for compression of another payload of a subsequent packet" as recited in claim 1.

The Examiner continues by appending McBride. It describes mechanisms for decompression only when a first count is equal to a second count, thus decompressing when the receiver and transmitter are aligned. Specifically, McBride describes a transmitter transmitting compressed frames to a receiver. The transmitted frames may or may not be compressed. The transmitter maintains a first count of the number of frames that are transmitted. Every time a frame is transmitted, the first count increases. The receiver receives the transmitted frames, and maintains a second count of the number of frames that are received. Every time a frame is received, the second count increases. If on receiving a frame, the first count is equal to the second count, it is determined whether the transmitted frame was compressed. If the transmitted frame was compressed, the received frame is decompressed according to a decompression algorithm. If the first count is not equal to the second count, the compressed received frame is not decompressed as the decompression algorithm will fail, if used to decompress the compressed received frame. See McBride at column 4, lines 21-27, FIG. 2 and associated text. McBride's first count and second count are merely used to ensure that the transmitter and the receiver are aligned such that the right compressed frame is decompressed at the receiver. The Examiner proposes fundamentally changing McBride's alignment-based system to operate in a way not contemplated by McBride without providing any reasonable motivation to make such a drastic modification in contravention of M.P.E.P 2143.03. Because McBride is merely concerned with alignment, it is not surprising that McBride lacks any disclosure or suggestion related to "selectively updating a compression history at a compressor based on a first algorithm and a second algorithm ... the compression history used for compression of another payload of a subsequent packet" as recited in claim 1.

The Examiner continues by appending a fourth reference Dorward. It describes a history vector of previous packets which were received and acknowledged but not a history vector selectively updated using those packets which are compressible. Without any motivation, the Examiner proposes fundamentally changing Dorward's history vector (which relies on acknowledgements from the receiver) to operate in combination with Jonsson's header compression, Banerji's DCT video compression system, McBride's alignment system in contravention of M.P.E.P 2143.03. Furthermore, a skilled artisan would recognized that such a combination including non-analogous art is unlikely to be operative. *Ex Parte Toftness*, 2008 WL 4451384 (Bd. Pat. App. & Int 2008) (reversing the Examiner's section 103 rejection as the proposed combination would yield an inoperative device). Furthermore, Dorward fails to disclose or suggest "selectively updating a compression history at a compressor based on a first algorithm and a second algorithm ... the compression history used for compression of another payload of a subsequent packet" as recited in claim 1.

In view of the above, claim 1 is allowable over Jonsson, Banerji, McBride and Dorward, whether taken individually or in combination, and the rejection under 35 U.S.C. §103(a) of claim 1, as well as claims 2-5, at least by reason of their dependency, should be withdrawn. Independent claims 6, 11, 15, 19, 22, 23, 24, 25, and 26, include features similar to those noted above with respect to claim 1. For at least the reasons noted above with respect to claim 1, independent claims 6, 11, 15, 19, 22, 23, 24, 25, and 26 as well as claims 7-10, 12-14, 16-18, 20, and 21, at least by reason of their dependency from their independent claims, are allowable over Jonsson, Banerji, McBride and Dorward, whether these references are taken individually or in combination, and the rejection of those claims under 35 U.S.C. §103(a) should be withdrawn.

No additional fees are believed to be due, however the Commissioner is authorized to charge any additional fees or credit overpayments to Deposit Account No. 50-0311, reference No. 39700-783001US/NC37129US. If there are any questions regarding this reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

Date: February 16, 2011

Pedro F. Suarez
Reg. No. 45,895

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
3580 Carmel Mountain Road, Suite 300
San Diego, CA 92130
Customer No. 64046
Tel.: 858/314-1540
Fax: 858/314-1501